

REMARKS

In the Office Action mailed May 5, 2008, the Office Action Summary noted that claims 17-31 were pending and that claims 17-31 were rejected. However, in item 2, on page 2, the Office Action noted that claims 1-29 were rejected. Claims 17, 21, and 28-31 have been amended; claims 19 and 20 have been cancelled; new claim 32 has been added; and thus in view of the foregoing, claims 17, 18 and 21-32 remain pending for reconsideration which is respectfully requested. No new matter is believed to have been added. The Office Action's rejections are respectfully traversed below.

This Application is directed to synchronizing a radio communication system whereby video can be transferred cost-efficiently at fast data rates to a mobile station. In particular, the Application discloses the simultaneous and joint use of a time slot of a carrier frequency and minimization of the resulting co-channel interference between radio cells through synchronization. Two adjacent base stations, according to claim 17, simultaneously share a timeslot of a carrier frequency to use as a radio transmission resource. This is accomplished automatically by a base station and is optimized via synchronization by reception of signals from adjacent base stations and mobile stations assigned to the adjacent base stations.

Rejection of Claims 17-31 under 35 U.S.C. § 103(a)

In item 2, on page 2 of the Office Action, claims 1-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Soliman (International Publication Number WO-0120818) (hereinafter Soliman). However, the Office Action Summary notes that claims 17-31 were rejected. Applicant's response below is related to the rejection of claims 17-31. This rejection is respectfully traversed.

Soliman discusses a method of synchronizing base stations. Soliman notes that this is useful for base stations which are not capable of receiving GPS signals, such as those located in a subway system or in tunnels. (See page 1, lines 5-11 and page 3, lines 26-33). Stated another way, Soliman discusses methods to keep a wireless communication system synchronized without an external reference such as a GPS signal. (See page 4, lines 34-36). A mobile station computes the difference between the base station system time and GPS time and then transmits a message to the base station. The base station then computes a timing adjustment factor to synchronize its clock with GPS time. (See page 11, lines 12-34).

In light of the above discussion, it is respectfully submitted that amended independent claim 17 is patentable over Soliman because nothing has been found or cited in Soliman which would render obvious, teach, or suggest:

employing timeslots of commonly assigned carrier frequencies as radio transmission resources, wherein at least two adjacent base stations simultaneously and jointly employ a timeslot of a carrier frequency for radio provisioning a respectively assigned mobile station. (emphasis supplied)

The amendment to claim 17 is supported by the substitute specification filed in paragraph [0036] and is submitted to improve the form of the English translation from German. As discussed above, Soliman notes a method of synchronizing a wireless system without using GPS, but claim 17 recites: "**at least two adjacent base stations simultaneously and jointly employ a timeslot of a carrier frequency for radio provisioning a respectively assigned mobile station.**" In other words, the simultaneous use of a timeslot recited in claim 17 allows for better allocation of radio resources for transmitting video at fast data rates. On the contrary, in Soliman, the mobile station and base station communicate with one another, and the base station adjusts its timing via the signals received from the mobile station which allows the mobile station to receive signals from the base station. (See page 11, lines 12-34). Thus, Soliman does not discuss a method to share a timeslot wherein: "**two adjacent base stations simultaneously and jointly employ a timeslot of a carrier frequency for radio provisioning a respectively assigned mobile station.**"

In addition, nothing has been found or cited in Soliman which would render obvious, teach or suggest the following feature of claim 17:

determining, from the base station signals received at the mobile station, a second synchronizing value for at least one of time synchronizing and frequency synchronizing.

Rather, in Soliman, the "synchronization" referred to is related to synchronizing the internal time of a base station unable to receive GPS signals by using signals **only from mobile stations.** (See page 11, lines 23-25). However, Soliman does not determine "a synchronization value" by using "the base station signals received at the mobile station" as recited in claim 17.

On page 3 of the Office Action, it is alleged that Soliman, page 4, lines 9-14 discloses a feature found in amended claim 17: "selecting the timeslot from the commonly assigned radio transmission resources taking account of an interference situation in the timeslot." However, page 4, lines 9-14, discuss a slave base station adjusting its timing so that a mobile base station can communicate with the slave base station, as discussed above. Page 4, lines 9-14 do not refer to selecting a timeslot to be shared by mobile stations and thus nothing cited in the Office Action in Soliman teaches or suggests, either expressly or inherently, "selecting the timeslot from the commonly assigned radio transmission resources taking account of an interference situation in the timeslot."

In addition, amended independent claims 28-31 are also patentably distinguishable over Soliman for reasons similar to those discussed above with respect to claim 17.

The dependent claims depend from the above discussed independent claims and are patentable over Soliman for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by Soliman. For example, dependent claim 21 recites: "synchronizing by at least one of the base station and mobile station by adjusting carrier frequencies and timeslot-transmitting instants." In particular, Soliman does not teach or suggest "synchronizing...by adjusting timeslot-transmitting instants." It is thus submitted that the dependent claims are independently patentable over Soliman.

New Claim 32

New claim 32 is related to "[a] method for synchronizing a radio communication system divided into radio cells transmitting data using a multiple access method," is patentably distinguishable over the cited reference and recites:

utilizing time slots of jointly assigned carrier frequencies of adjacent base stations as radio transmission resources wherein **two adjacent base stations simultaneously and jointly use a time slot of a carrier frequency for radio coverage of a mobile station. (emphasis supplied)**

Summary

In accordance with the foregoing, it is respectfully submitted that all outstanding rejections have been overcome and/or rendered moot. Further, all pending claims patentably distinguish over the cited references. There being no further outstanding rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

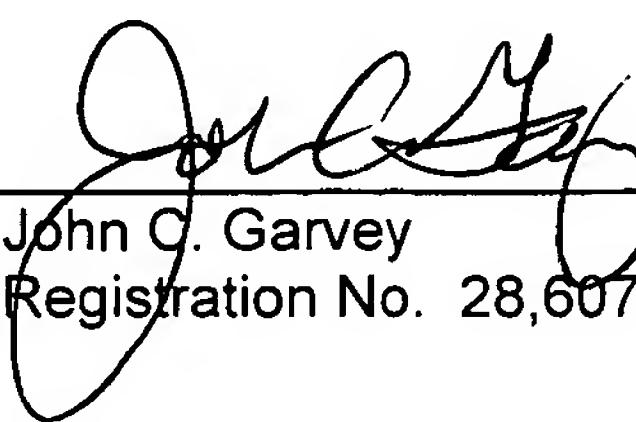
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 10-6-08

By: 
John C. Garvey
Registration No. 28,607

1201 New York Ave, N.W., Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501